<u>IN THE CLAIMS</u>:

The following is a complete listing of the claims now pending; this listing replaces all earlier versions and listings of the claims.

1.   (Currently Amended) An image processing apparatus comprising:

a saturation calculation ~~unit~~ <u>unit,</u> arranged to calculate saturation information of an image;

<u>a first setting unit, arranged to set a first conversion parameter for a low-saturation side;</u>

<u>a second setting unit, arranged to set a second conversion parameter for a high-saturation side;</u>

a saturation conversion characteristic generating ~~unit~~ <u>unit,</u> arranged to generate a saturation conversion characteristic on the basis of ~~a conversion line or curve corresponding to a~~ <u>the first</u> conversion ~~condition for a~~ <u>parameter, for the</u> low-saturation side, and ~~a conversion line or curve corresponding to a~~ <u>the second</u> conversion ~~condition for~~ a <u>parameter, for the</u> high-saturation side; and

a saturation conversion unit arranged to convert the saturation of the image on the basis of the saturation conversion characteristic.

2.   (Canceled).

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3.   (Currently Amended) The apparatus according to claim 1, further

comprising a conversion ~~condition setting unit~~ parameter determination unit, arranged to

determine the first ~~set each~~ conversion ~~condition~~ parameter, for the low-saturation side, and

the second conversion parameter, for the high-saturation side ~~by using the input~~ based on

the saturation information.

4.   (Currently Amended) The apparatus according to claim 1, further

comprising an instruction unit, ~~unit~~ arranged to ~~make~~ accept an instruction input by a user

in order to ~~set each~~ determine the first conversion ~~condition~~ parameter, for the low-

saturation side, and the second conversion parameter, for the high-saturation side.

5 and 6.   (Canceled).

7.   (Previously Presented) The apparatus according to claim 1, wherein

the saturation conversion characteristic exhibits a monotonic increase or a monotonic

decrease.

8-11.   (Canceled).

12.   (Previously Presented) The apparatus according to claim 1, further

comprising:

a detection unit arranged to detect a color distribution of the image;

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a generation unit arranged to generate gradation correction

information of the image on the basis of the color distribution; and

a gradation correction unit arranged to perform gradation correction

of the image on the basis of the gradation correction information.

13.   (Previously Presented) The apparatus according to claim 12,

wherein said saturation conversion unit performs saturation conversion on an image which

has undergone gradation correction by said gradation correction unit.

14.   (Previously Presented) The apparatus according to claim 12,

wherein said generation unit comprises:

a highlight calculation unit arranged to calculate highlight area

information of an image on the basis of the color distribution; and

a white balance calculation unit arranged to calculate white balance

information on the basis of the highlight area information and a predetermined highlight

value, and wherein said gradation correction unit corrects gradation of the image on the

basis of the white balance information and the highlight value.

15.   (Previously Presented) The apparatus according to claim 12,

wherein said generation unit comprises:

a shadow calculation unit arranged to calculate shadow area

information of an image; and

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a black balance calculation unit arranged to calculate black balance

information on the basis of the shadow area information and a predetermined shadow

value, wherein said gradation correction unit corrects gradation of the image on the basis of

the black balance information and the shadow value.

16.   (Currently Amended) An image processing method comprising:

a saturation calculation step, of calculating saturation information of

an image;

a first setting step, of setting a first conversion parameter for a low-

saturation side;

a second setting step, of setting a second conversion parameter for a

high-saturation side;

a saturation conversion characteristic generating step, of generating a

saturation conversion characteristic on the basis of ~~a conversion line or curve~~

~~corresponding to a~~ the first conversion ~~condition for a~~ parameter, for the low-saturation

side, and ~~a conversion line or curve corresponding to a~~ the second conversion ~~condition~~

~~for a~~ parameter, for the high-saturation side; and

a saturation conversion step, of converting the saturation of the

image on the basis of the saturation conversion characteristic.

17.   (Canceled).

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18.   (Currently Amended) The method according to claim 16, further comprising a conversion ~~condition setting~~ parameter determination step, of ~~setting each~~ determining the first conversion ~~condition~~ parameter, for the low-saturation side, and the second conversion parameter, for the high-saturation side ~~by using the input~~ based on the saturation information.

19.   (Currently Amended) A recording medium comprising program codes of an image processing method, and at least comprising:

code for a saturation calculation step, of calculating saturation information of an image;

code for a first setting step, of setting a first conversion parameter for a low-saturation side;

code for a second setting step, of setting a second conversion parameter for a high-saturation side;

code for a saturation conversion characteristic generating step, of generating a saturation conversion characteristic on the basis of ~~a conversion line or curve~~ ~~corresponding to a~~ the first conversion ~~condition~~ parameter, for the low-saturation side, and ~~a conversion line or curve corresponding to a~~ the second conversion ~~condition for~~ ~~a~~ parameter, for the high-saturation side; and

code for a saturation conversion step, of converting the saturation of the image on the basis of the saturation conversion characteristic.

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20.   (New) The method according to claim 16, further comprising an

A

instruction step, of accepting an instruction input by a user in order to determine the first

conversion parameter, for the low-saturation side, and the second conversion parameter, for

the high-saturation side.